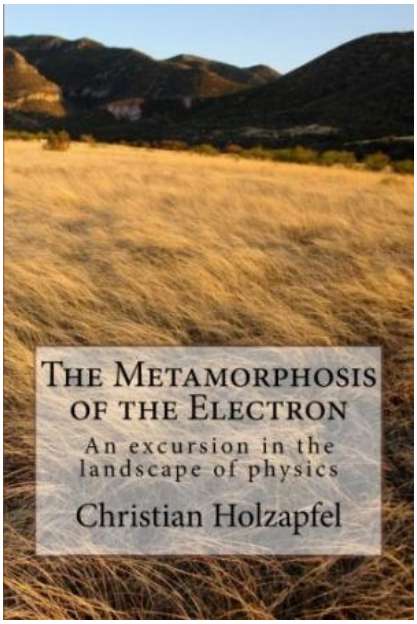


DOWNLOAD

The Metamorphosis of the Electron An excursion in the landscape of physics

By Christian R. J. Holzapfel

CreateSpace Independent Publishing Platform. Paperback. Book Condition: New. This item is printed on demand. Paperback. 148 pages. Dimensions: 9.0in. x 6.0in. x 0.3in.In the beginning the electron was thought of as a small ball of electric charge. With the development of the theory of relativity physicists got into troubles with this simple picture. The electron was rotating, but the speed of rotation was much too high. Calculating the mass made problems. Quantum theory solved some of the difficulties, but only by losing an intuitive understanding. The location of the electron became uncertain; the ball turned into a diffuse cloud. Simple experiments with beams of electrons clearly demonstrated truly queer properties of electrons. The particle turned into a wave. The picture of the electron got more and more unclear, the shape was transformed to unclear terms and at the end it lost its identity. As we follow the metamorphosis of the electron some of its partners, the positron and the photon, appear and they also show odd features. We will see where the electron and its partners are involved: atomic model, quantum physics, theory of relativity, classical electrodynamics, quantum electrodynamics, gravitation and antimatter. Along the way the related physics is explained...

READ ONLINE
[2.78 MB]

Reviews

Extensive manual for publication fans. It is actually filled with knowledge and wisdom You can expect to like how the author compose this pdf.

-- ***Alvina Runte PhD***

This book is definitely not easy to get going on reading through but extremely exciting to see. I am quite late in start reading this one, but better then never. I am pleased to explain how here is the finest book i actually have read inside my individual daily life and may be he best book for ever.

-- ***Mrs. Ellie Yost II***